

OPTIONS for a NEW LOWER THAMES CROSSING

2016 CONSULTATION

SHORNE PARISH COUNCIL'S REPRESENTATIONS

IN RESPONSE TO THE CONSULTATION

1. Introduction

- 1.1** Shorne Parish Council is a Local Authority constituted under the Local Government Acts. The Parish is located in the Borough of Gravesham in the county of Kent. The Parish falls in the area known as Thames Gateway. In addition to the regular consultation on development control matters, the Parish Council has also made representations to public inquiries on appeals. The Council has made representations on the Local Plan and the former County Structure Plan. The Council has also been involved in the parliamentary process having petitioned the Channel Tunnel Rail Link Bill in both Houses.
- 1.2** The Council has followed the development of the Lower Thames Crossing since the publication of the Parsons Brinkerhoff Report in 2009. The Council made representations in 2013 in response to the earlier consultation by the Department of Transport regarding route options prepared by consultants Jacobs and AECOM. The Council stated a preference for 'Option A' and expressed strong opposition to 'Option C' giving the grounds on which this view was based.
- 1.3** The Council noted the publication by the Department of Transport of Technical Note Module 4 in May 2014, scoping the cost and potential environmental mitigation of 'Option C', following suggestions by KCC. The Council did not respond at this stage having already expressed a preference for 'Option A'.
- 1.4** The Council was aware that progressing the various options had been transferred from the Department of Transport to Highways England Ltd. and that an announcement was expected early in 2016 but was surprised when information on routes appeared on the internet on the evening of Monday 25th January 2016 before the publication of a preferred route on Tuesday 26th January.
- 1.5** The Council noted the original route outlined by Parsons Brinkerhoff in 2009 and forming part of the 2013 consultation, appeared to have been dropped. Two routes south of the Thames were proposed by Highways England Ltd., prepared by Halcrow Hyder Joint Venture, both of which cross the Parish; a Western Southern Link following that originally publicised by KCC in 2010 and published in more detail by the Department of Transport in 2014 and an Eastern Southern Link which is completely new.
- 1.6** These representations relate to the crossings of the Thames and the proposed routes south of the river. The Council does not consider it is qualified to comment on the merits of Routes 2, 3 and 4 north of the river Thames.
- 1.7** The Council notes the preferred option from the 2013 consultation was 'Option A'.

2 Highways England's Published Preferred Option

- 2.1** On 26th January 2016 Highways England announced that its preferred route was 'Option C' and that it was consulting on two routes south of the river Thames, one to the west of Shorne (the Western Southern Link) based on that published in May 2014 and the other east of Shorne village. The route east of Shorne village (the Eastern Southern Link), Highways England's preferred route, had not been published previously.
- 2.2** Three routes north of the river are being consulted on numbered 2, 3 and 4. Route 1 improvements to the existing crossing at Dartford formed part of the evaluation but is not included in the consultation. Route 2 between Chadwell St Mary and Tilbury then west of Chadwell St Mary before turning west to join the M25 at North Ockenden. Route 3 runs east and north of Chadwell St Mary before turning west to join the M25 at North Ockenden. Route 4 runs east of Chadwell St Mary continuing to meet the A127 and turn west to run parallel with the A127 to the south to join the M25 at junction 29. None of these routes follows the line of the route published in 2013.
- 2.3** Highways England have indicated that their preferred option is 'Option C', Route 3 crossing Essex and the Eastern Southern Link in Kent. The preferred option for the crossing is a Bored Tunnel. It should be noted the northern portal would be further west than that shown on the drawing prepared by AECOM for the Department for Transport in 2013.

3 Highways England's Stated Objectives

- 3.1** In the Consultation Document on page 12, Highways England state the scheme objectives are :-

Economic

- (a) To support sustainable local development and regional economic growth in the medium to long term.
- (b) To be affordable to Government and users.
- (c) To achieve value for money.

Transport

- (d) To relieve the congested Dartford Crossing and approach roads and improve their performance by providing free flowing north-south capacity.
- (e) To improve resilience of the Thames crossings and the major road network.
- (f) To improve safety.

Community and environment

- (g) To minimise adverse impacts on health and the environment

- 3.2** Considering the first three economic objectives.

"To support sustainable local development and regional economic growth in the medium to long term" It should be noted that all the 'Option C' routes pass through areas designated as Green Belt. There is a presumption against development in Green Belt areas and it assumed therefore that the majority of the growth is envisaged beyond the Green Belt or on 'Brown Field' sites. South of the river both routes traverse significant areas of Grade 1 and Grade 2 agricultural land and protected sites in the strategic gap between Gravesend and the Medway Towns. 'Option C' is unlikely therefore to support sustainable local development.

Regional economic growth; the proposed scheme is unlikely to make a significant contribution to regional economic growth mainly because of the lack of connectivity to the M20 in Kent. There is evidence to suggest that the impact of congestion caused by additional traffic in North Kent may impede economic growth.

"To be affordable to Government and users". To be affordable it is assumed any proposal must be fundable, compare favourably with other schemes and be within the set budget limits; there is little evidence on which this can be judged.

"To achieve value for money". This must be judged as the cost of achieving the other stated objectives. That 'Option C' would represent value for money has not been established. There have been numerous claims and assumption made in the published documents but there is little evidence to substantiate them.

It is noted that the value for money attributed to Option C has doubled from 1.9 in the 2013 to 3.8 in the current consultation. There has been no material change in the intervening period, therefore this apparent variance is open to question.

At present there is no method of scrutinising these assumptions and that the scheme represents value for money in improving conditions at Dartford must be in serious doubt.

3.3 The next three objectives are Transport related.

"To relieve the congested Dartford Crossing and approach roads and improve their performance by providing free flowing north-south capacity" is the first of these objectives.

There is little evidence that 'Option C' will materially improve conditions at Dartford. At present north-south capacity is largely free flowing. The current problem is south-north and the preferred option fails to address this. No works are proposed at Dartford. The introduction of a somewhat circuitous route to bypass Dartford is unlikely have a significant impact on congestion at Dartford noting that the problem is intensifying.

"To improve resilience of the Thames crossings and the major road network". As proposed with no improvement in the links between the A2/M2 and the M20, the proposed crossing cannot provide resilience. Diversion of traffic will result in congestion in North Kent and any significant diversion of traffic resulting from an interruption in the traffic flows at Dartford are likely to create gridlock in North Kent. As at present proposed without 'Option C variant' the route cannot provide resilience.

Without improvements to the A229 and elsewhere 'Option C' will contribute little to the major road network.

"To improve safety". There is little evidence to support the assertion that the route will increase safety. By increasing traffic flows on the existing road network in North Kent it is likely to have the reverse affect.

3.4 The final objective relates to Community and environment

"To minimise adverse impacts on health and the environment". 'Option C' fails to achieve either of these objectives. It does not improve the conditions at Dartford which is suffering poor air

quality and maximises environmental impacts elsewhere. The proposal fails to achieve these two objectives. The opportunity to improve conditions at Dartford has been ignored.

4. The Route Options in Detail

4.1 It is noted that Highways England have entered into consultation on their preferred route which is 'Option C' Route 3 north of the river Thames, a bored tunnel and the Eastern Southern Link south of the river. The Parish Council regret that Highways England has excluded 'Option A' from the 2016 consultation particularly since this was clearly the preferred option from the 2013 consultation. The Parish Council has nevertheless commented further on the merits of 'Option A'.

4.2 The Southern Links

4.2.1 Since the Western Southern Link and the Eastern Southern Link both have an impact on the Parish of Shorne the Council does not wish to express a preference between the two routes. The Council remains opposed to 'Option C' in principle, based on the grounds given in the conclusion to these representations. It should be noted that in the Council's response to the Department for Transport consultation in 2013 the Council expressed a preference for 'Option A'. This is explored in more depth in Section 2.5 of these representations.

4.2.2 Notwithstanding the Council's opposition to 'Option C' in principle, the Council has nevertheless assessed the impact of the Western Southern Link and the Eastern Southern Link as commented on below.

4.3 The Western Southern Link

4.3.1 The complete route of the Western Southern Link runs through an area designated as Green Belt. The route is described below from south to north.

- (a) The route commences west of Scalers Hill north of the Channel Tunnel Rail Link (HS1), which in this location is running on an embankment, in an area shown on the Gravesham Local Plan Core Strategy as subject to policy CS 11. This is to protect land for HS1. The junction south of the A2 is in the North Downs - Area of Outstanding Natural Beauty part of which would be regarded as 'Brown Field' land since it is currently occupied by a petrol filling station.
- (b) In this location the existing A2 would be realigned some 70m further north to increase the amount of land available between the A2 and the Rail Link (refer to Drawing HML-CB1JJC01AJL-DR-RD-0001). This would result in the loss of agricultural land on the north side of the existing A2.
- (b) The slip lanes south of the A2 will climb on embankment before crossing the A2 on a bridge at relatively high level. The other two lanes will join on an embankment on the north side of the A2 before the road heads north, north-east to approach the tunnel portal. This section of road being elevated will propagate noise into the adjacent residential areas.
- (c) The route then crosses open farm land west of the hamlet of Thong where it enters a cutting passing within 100m of residential property. The agricultural land between the A2 and Thong Lane is Grade 1. Less than 2.8% of the land in England and Wales falls

into this category and the National Planning Policy Framework advocates a sequential approach avoiding Grade1, Grade2 and Grade 3A agricultural land. The proposed route would disrupt and sever the existing field pattern making access more difficult and damaging farming interests.

- (d) The proposed road in cutting some 7m deep would pass under Thong Lane within 60m of the properties at the southern end of Thong Lane and 130m from the nearest property in the hamlet of Thong.
- (e) The proposed road would sever the Southern Valley Golf Course which it would cross in cutting. The Golf Course is a valuable local amenity. East of Thong Lane, the agricultural land is Grade 1 decreasing to Grade 2.
- (f) Footpath NG 7 'Muggins Lane' is a significant right of way linking Shorne and Shorne Ifield with Gravesend. This is shown in the consultation documents with a 1.6 km diversion of a well established route.

The Parish Council wishes to register an objection to the diversion of NG7 off its existing line.

- (g) Previous proposals have excluded any access between the approach roads to the proposed crossing and the A226. The introduction of access between the crossing approach road and the A226 could significantly change traffic patterns increasing the traffic load on the A226 through Shorne and Higham and in Gravesend. This would create a 'Rat Run' allowing traffic to gain access to the proposed route close to the tunnel portal. Junctions close to the crossing are cited as a problem with the existing crossing at Dartford

It is proposed to divert the A226 Gravesend/Rochester road off its present line causing major disruption to the field patterns. Previous proposals have excluded any access between the approach roads to the proposed crossing and the A226.

The Parish Council would wish to register an objection to the proposed junction with the A226.

- (h) The proposed route passes between Castle Lane and Church Lane in Chalk in cutting and will physically separate Chalk from its Parish Church.
- (i) The proposed route crosses the western end of the North Kent Marshes Site of Special Scientific Interest, the internationally protected 'Ramsar' site, a site protected under the EU Habitats Directive and an Environmentally Sensitive Area.

Drawings forming part of previous consultations have indicated ventilation shafts in the marshes area. There is little detail on the indicative drawing but based on the tunnel portal areas of similar tunnels there is likely to be a requirement for buildings, gantries and similar structures near the portal and the tunnel will require maintenance facilities. The provision of such facilities is likely to endanger the marshland habitat.

The construction and maintenance of tunnels in this area is likely to adversely affect the maintenance of existing water tables on which the marshland habitat relies thus endangering the habitat in the vicinity of the tunnels and in the wider area.

- (j) It is noted that the chainages indicate that this route is some 3.25 km long measuring to the tunnel portal.

4.3.2 The Parish Council is concerned that the route would necessitate the closure of the A2 eastbound on slip road at Marling Cross (Gravesend East) junction and the closure of the off slip road at Shorne. The westbound on slip road at Cobham would also be closed.

4.3.3 A new service road would link the Cobham roundabout on the south side of the A2 to the southern roundabout on the Marling Cross (Gravesend East) junction. Westbound traffic would leave the A2 at Cobham and travel along the service road (an extension and upgrade of the Watling Street - Thong Lane access) to Marling cross. Eastbound traffic would use the service road from Marling Cross to the Cobham roundabout, cross the A2 via the Shorne overbridge and use the Shorne slip-road to join the A2.

4.3.4 It should be noted that the Western Southern Link provides free flow access to the crossing from the A289 Wainscott By-pass via the A2. *As a result access from the crossing approach road on to the A226 is not required to provide access to the A289.*

4.4 The Eastern Southern Link

4.4.1 The complete route of the Eastern Southern Link runs through an area designated as Green Belt. The route is described below from south to north.

- (a) The route commences at the point where the A2 becomes the M2. This is also the location where the A289 Wainscott By-pass joins the A2/M2. In this location the area to the south of the A2/M2 is in the North Downs - Area of Outstanding Natural Beauty (ANOB). The proposal is for a free flow junction linking the A2/M2 to the tunnel link road (refer to Drawing HML-CD1JC01AJL-DR-RD-0001).
- (b) The slip road off the east bound carriageway of the A2 would leave the A2 immediately east of the over-bridge to the Cobham and Shorne Golf Club and cross the Harlex Ltd. yard at Park Pale. This section of the slip road is in the ANOB. The slip road then curves north and rises on an embankment before it crosses Bowesden Lane.
- (c) The slip road off the westbound lane of the M2 leaves before the A289 slip and rises on an embankment and crosses over the M2 to meet the eastern off slip on the embankment east of Bowesden Lane continuing in a curve rising toward Pear Tree Lane.
- (d) The on slip-road to the western carriageway of the A2 would leave the embankment east of Bowesden Lane, cross over the A289 and the proposed western off slip to intersect with the A2 Watling Street as it approaches the A289 before joining the A2. This slip-road would be on a viaduct some 23m (75 feet) high.
- (e) The on slip road to the eastern carriageway of the M2 would leave the embankment east of Bowesden Lane cross over the A289 and under the A2 Watling Street which would be realigned before joining the M2 immediately after the A289.
- (f) *Kent County Council in a committee report on the proposal has described the existing A2/M2/A289 junction as "already complex". The report also comments that the proposal*

would require four levels of slip road.

It should be noted that the proposed junction would not provide access to the A289 Wainscott By-Pass and this with the current proposals would be provided via the A226.

- (g) The slip roads with their embankments and high level viaduct will be clearly visible from the ANOB and would damage the setting of the ANOB.
- (h) After the slip roads have joined, the main carriageway enters a cutting 500m long and 11m deep to pass under Pear Tree Lane. On the south side of Pear Tree Lane the cutting passes through the Great Crabbles Wood 'Site of Special Scientific Interest.' The wood has been designated as a 'Site of Special Scientific Interest' because of its flora some 8 acres of which will be destroyed by the road and cutting. Because of the geological conditions the side slopes of the cutting would need to be at 1:3.5.
- (i) The proposed route would result in a need to acquire and demolish residential property in Pear Tree Lane and in Strood.
- (j) After the route leaves the cutting, it passes onto an 800m long embankment 400m east of Shorne village. The embankment would vary in height from 10m (32 feet) to 23m (75 feet) (refer to Drawing HML-CD2MLZZZML-DR-RD00102). It should be noted that the embankment is not shown correctly on plan, on the plan and profile drawing. The side slopes of the embankment would be 1:2.5. The area is Grade 2 becoming Grade 1 agricultural land. The route would interrupt the existing field pattern.
- (k) The route would then turn west to clip the corner of The Warren at existing ground level crossing Grade 1 agricultural land.
- (l) North of Shorne village, the proposed road would be on an embankment some 4.3m high (14 feet) where it crosses Forge Lane (based on the underside clearance required for a bridge and the existing carriageway level of Forge Lane). This would present a physical barrier dividing Lower Shorne from Shorne Village. It would also interrupt views of Lower Shorne and the River Thames resulting in a significant loss of amenity. There is some ambiguity at this point; Drawing HML-CD2MLZZZML-DR-RD-0103 indicates Forge Lane below its existing ground level. There is a bank approximately 1.7m high on the east side of the lane at the point where the proposed route crosses. The illustrative drawing appears to show the lane being lowered which is unlikely to be practical when the existing levels of the lane are taken into account.
- (m) Running west from Forge Lane, the proposed route is indicated as entering a cutting some 10m (32 feet) deep to pass under Crown Lane.
- (n) The route emerges from the cutting close to the parish boundary where a junction would be constructed. A small roundabout would be constructed south of the route with slip lanes off the proposed road. A link road would run north to join a new roundabout on the A226 Gravesend Road. Slip roads would also join the link road on the north side of the proposed route. There is again some ambiguity on the drawing in that the plan would suggest that the link road would pass under the proposed road and the plan and profile indicates it going over the proposed road. This area is Grade 2 agricultural land.

- (i) The proposed route would then enter a cutting some 19m (62 feet) deep as it approaches the ridge on which Chalk Church stands. This area is Grade 2 agricultural land. Footpath NG8 would be carried over the road on a bridge. The route then curves to the north and passes under the A226 to join the alignment described in Paragraph 4.1.1 (h) above.
- (j) It is noted that the chainages indicate that this route is some 4.65km long measuring to the tunnel portal.

4.4.2 As at present proposed, the grade separated junction with the A2/M2 does not provide access onto the A289 Wainscott By-pass and the link to the A226 would be required to provide this.

4.5 'Option A' a second bridge at Dartford

4.5.1 Previous consultations have considered a second bridge at Dartford as a viable option. It appears that extensive engineering works have been added to this option and the Parish Council questions if all these and their associated costs are reasonable.

4.5.2 Circumstances at Dartford have changed since 2013 with the introduction of electronic tolling. It is now possible to compare directly the difference in performance between a four lane bridge and two two-lane tunnels. The Parish Council remains of the view that the congestion on the A282 at Dartford, as part of the M25, can only be resolved at Dartford. The introduction of electronic tolling at Dartford has resulted in the free flow of traffic north to south crossing the river. The fact that the A282 has four lanes of traffic crossing the Queen Elizabeth Bridge flowing into a cutting as four lanes between retaining walls with junctions 1a and 1b is not inhibiting the flow of traffic onto the M25. In the Council's view, this is clear irrefutable evidence that a similar arrangement for traffic travelling south to north will solve the congestion problems at Dartford and enable the full potential of the M25 at this point to be realised.

4.5.3 On the north side the M25 approaches as a four lane carriageway reducing to three when the lane to the A13 peels off at Junction 30 and it becomes the A282. At the point where the A13 traffic joins it is still three lanes. It returns to being four lanes at Junction 31 when the A1306 joins carrying the Lakeside Traffic as it approaches the bridge.

4.5.4 A similar situation pertains on the southern approach to the crossing. The M25 approaches as a four lane carriageway reducing to three when the lane to the A2 peels off at Junction 2. It returns to four lanes as the A282 when the A2 joins and continues as four lanes where the A226 joins at Junction 1B and at Junction 1A where the A206 joins.

4.5.5 The two crossing approaches are similar as demonstrated in paragraphs 2.1.2 and 2.1.3 above. The Council does not accept that major works are necessary on the southern approach for a bridge to remove the congestion. The Council would submit that the engineering complexity of widening the southern approach is artificially affecting the evaluation of Option A and distorting the cost comparisons with other options.

4.5.6 The factors causing the congestion at Dartford are well known. Primarily this is because the two tunnels require the traffic to separate into two streams. Vehicles exceeding 4.7m (15.4 feet) high are required to cross over to lanes 3 and 4 to use the eastern tunnel. Tunnels do not flow as freely as an open bridge deck. The second factor is the need for vehicles carrying hazardous cargo to be intercepted and formed into convoys to be escorted through the tunnels which disrupts the traffic flow. This results in a need for an average of 800-900 vehicle escorts per week. Each escort can

necessitate stopping two lanes of traffic for some 2 minutes causing an accumulation of traffic and tailbacks. Vehicles carrying hazardous cargo can drive straight over a bridge. It is recognised that bridges are susceptible to high winds but this is a relatively rare occurrence and the impact is limited when compared with other types of delay.

- 4.5.7** Standing traffic is a significant cause of pollution at Dartford. Engines do not run efficiently when idling. The free flow of traffic resulting from the construction of a second bridge would have a significant impact in improving the air quality at the Dartford crossing.
- 4.5.8** The design for a bridge to cross the river at Dartford already exists much of which should be reusable. The design for approach viaducts would need to be modified and the accommodation works on each side of the river would need to be designed. Compared with a new tunnel design and some 20 km of new major road, 5 major junctions, ten bridges, the site investigation works and land acquisition, in design terms a second bridge at Dartford can be achieved more quickly and more cheaply than the other options.
- 4.5.9** It is suggested that the existing junction on the A282 at 1A and 1B south of the river should be closed and linked by a connecting road on each side of the A282 running along the top of the retaining wall on each side. The connecting road should then run under the approach viaduct to the new bridge and link with the existing tunnels to carry local traffic. This would release capacity on the A282 and maximise the use of the existing assets.
- 4.5.10** The existing bridge at Dartford already dominates the area. A second bridge at Dartford would be introduced into an existing industrial landscape where its environmental impact would be minimal.

5 Summary

- 5.1 History** - The Council recognises that there is problem with the demand from users exceeding capacity on the Dartford river crossing. The first Tunnel between Kent and Essex at Dartford opened in 1963 with two way traffic. A second Tunnel was added opening in 1980 and the crossing operated with one tunnel in each direction. The M25 London Orbital Motorway was completed in 1986. The Queen Elizabeth Bridge opened in 1991 carrying southbound traffic and both tunnels were used for northbound traffic. The M25 has since been widened over most of its length to four lanes including the approaches to the Dartford crossing to accommodate an increase in traffic load.
- 5.2 Context** - Traffic analysis demonstrates that most of the traffic using the Dartford crossing is strategic. A relatively small proportion of the traffic emanates from Kent. A large proportion reaches the crossing on the M25. Congestion on the M25 around Heathrow is an incentive for drivers using the orbital approaching on A27, M3 and similar roads to select an eastern routing using the crossing. For traffic emanating from the continent via Dover and HS1 with destinations north of the Thames, the M20/M25 and crossing the river at Dartford is the obvious choice. The converse is the case for traffic arriving on the M25 via the M11, A12 and similar routes. There is no reason for the bulk of the traffic using the M25 to cross the river at Dartford to wish to divert off line.

- 5.3** In the last decade, the M25 between Junctions 2 (the A2) and 3 (the M20) and Junction 16 (the A1) and 30 (the A13) has been widened to 4 lanes. Apart from the introduction of electronic tolling, there have been no improvements at Dartford to take advantage of this increased capacity and none are proposed.
- 5.4 Resilience** - It has been suggested that the highway network needs more resilience. The flow of traffic is constantly being interrupted by a variety of incidents. High winds leading to the closure of major bridges is cited as a risk. It is recognised that this is a disadvantage but the risk needs to be put into context. When there is a need to close a bridge the impact is severe. The frequency is low and it is mitigated by ability to forecast such events.
- 5.5** The ability to divert traffic onto an alternative route may appear attractive but it needs to be considered in context. To be viable the alternative route needs to have the same capacity as the M25 if it is to provide resilience. To suggest that 'Option C' is a viable alternative to the M25 is unrealistic. Even with the inclusion of 'Option C Variant' if a significant volume of traffic is diverted from the M25 it will result in gridlock with traffic queuing on both routes and blocking the connecting roads. That is spreading the problem; it will not solve the problem and in a situation when the existing Dartford bridge needs to be closed it will not provide resilience.
- 5.6 The Consultation** - The Council regrets that only eight weeks has been provided to assimilate and comment on the details of the proposal. The Council finds the consultation documents to be weighted in favour of Highways England's preferred option. The Council considers that the omission from the questionnaire of any reference to location A, route 1 to be significant.

6 Conclusion

- 6.1** The problems at the Dartford crossing result primarily from the increased traffic using the M25. Additional capacity has been provided on the M25 to meet increased demand and no measures have been taken to increase the capacity of the crossing at Dartford. The Council would submit that the answer is to increase the capacity at the crossing - not to attempt to provide an alternative.
- 6.2** The construction of 'Option C' cannot be justified on the basis of providing a solution to the congestion at the Dartford crossing.
- 6.3** If 'Option C' is constructed without improvements to the A229 (Option C Variant) the resulting congestion will damage the economy of North Kent.
- 6.4** Where the Council has commented on specific issues particularly in relation to traffic flow and road safety matters, more detailed analysis can be provided in support of the statements made.
- 6.5** The construction of 'Option C' would result in significant environmental damage over a wide area.
- 6.6** 'Option C' is the most expensive in financial and environmental terms and does little to meet the primary objective of improving the traffic flows at the Dartford crossing.